

What is claimed is:

1. A method for inspecting a sample with a probe beam, said probe beam being focused to a spot onto the sample surface, said spot having a generally elliptical shape with a long and a short axis, with the properties of the probe beam being measured after reflection from the sample, the method comprising:

determining a proximity of an inspection spot on the sample surface to an edge of the sample; and

10 positioning the sample with respect to the probe beam such that when the inspection spot is determined to be close to the edge of the sample, the probe beam spot falls on the inspection spot with the short axis being substantially perpendicular to the sample edge, the positioning of the sample including rotating the sample with respect to the probe beam in order to minimize an area of the sample which cannot be accurately inspected.

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2. A method according to claim 1, further comprising:

determining a proximity of a subsequent inspection spot on the sample surface to an edge of the sample; and

20 repositioning the sample with respect to the probe beam such that when the subsequent inspection spot is determined to be close to the edge of the sample, the probe beam spot falls on the subsequent inspection spot with the short axis being substantially perpendicular to the sample edge, the positioning of the sample including rotating the sample with respect to the probe beam.

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3. A method according to claim 1, further comprising:

positioning the sample with respect to the probe beam such that when the inspection spot is not close to the edge of the sample, the positioning of the sample including translating the sample without rotation.

4. A method according to claim 1, wherein:
positioning the sample further includes translating the sample with respect to
the probe beam.

5. A system for inspecting a sample, comprising:
a probe beam source capable of focusing a probe beam spot on the sample
surface, said probe beam spot having a generally elliptical shape with a long and a
short axis; and
a movable stage for supporting the sample and adjusting the position of the
sample with respect to the probe beam, the moveable stage being capable of both
rotational and linear movement, the moveable stage capable of positioning the sample
with respect to the probe beam such that when an inspection spot is determined to be
close to the edge of the sample, the probe beam spot falls on the inspection spot with
the short axis being substantially perpendicular to the sample edge, the positioning of
the sample including rotating the sample with respect to the probe beam in order to
minimize an area of the sample which cannot be accurately inspected.
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6. A system according to claim 5, wherein:
the moveable stage is further capable of sequentially positioning the sample at
a plurality of positions with respect to the probe beam to permit inspection of various
additional inspection spots on the sample surface, and wherein when one of the
additional inspection spots is close to the edge of the sample, rotationally positioning
the sample so that the short axis of the elliptical probe beam spot is substantially
perpendicular to the edge of the sample.
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7. A system according to claim 5, wherein:
the probe beam source includes a rotating optics head capable of adjusting the
shape of the beam spot on the sample surface.
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